HANDLE VIA BYEMAN
CONTROL SYSTEM

~~TOP SECRET~~
OXCART

BYE-3133-64
Copy 7 of 10

11 AUG 1964

MEMORANDUM FOR DIRECTOR OF CENTRAL INTELLIGENCE

SUBJECT: OXCART Status Report

1. On 9 July 1964 aircraft 133 crashed just short of the runway [redacted] and was totally destroyed. At an airspeed of approximately 200 knots the aircraft began a smooth steady roll to the left which could not be stopped by pilot action and at approximately a 45 degree bank and 200 feet altitude the pilot ejected safely. The primary cause of this accident was that the right outboard elevon servo valve stuck in the partially open position. This caused the right outboard elevon to gradually move to the full down position imparting more left roll to the aircraft than could be overcome by the pilot. Immediate action is being taken to rework all servo valves to conform to engineering modifications necessary to correct servo valve design deficiencies revealed during the accident investigation.

2. The major delay in the servo valve deliveries is the overall test time required at Bertea Products, the servo valve manufacturer. Components of the valve must be hot tested in a specially designed hot oven test bench as well as undergo tests under ambient conditions. Then the components are assembled to form a complete servo valve assembly and the assembly undergoes various required tests. Should a failure occur during any phase of the tests, the assembly must be completely disassembled, the defect corrected, and the entire procedure repeated. Bertea Products is working two 10 hour shifts per day on a 7 day a week basis to accelerate valve deliveries.

3. On 7 August 1964 aircraft 121 (the program's primary test aircraft) was the first aircraft to fly with a complete set of reworked servo valves. The flight lasted for 44 minutes and no flight control deficiencies were reported. The schedule for the remaining flight test aircraft to receive the valves as they are delivered is, in order of priority, as follows:

a. Aircraft 129 (estimated next flight, 13 August) - Will be fitted with two production type "J" engines and will be used for a proposed long range sustained flight to verify cruise performance.

b. Aircraft 122 (estimated next flight 21 August) - Being flown primarily for P&W tests to develop the main fuel control.

c. Aircraft 131 (estimated next flight 28 August) - Will be equipped with special electronic packages.

After the above noted flight test aircraft are back in flying status, the Detachment aircraft will be retrofitted with the new valves in the following order:

a. Aircraft 124 - Two seat trainer

b. Aircraft 132, 127, and 125 - Three of the four aircraft which the Detachment will use to develop a Mach 2.8 capability.

c. Aircraft 126 and 130

d. Aircraft 128 - The fourth aircraft to be used to develop a Mach 2.8 capability.

At the present time, it requires 7-10 days, after a complete set of six valves are available, to re-rig the entire aircraft flight control cables, check out the installation, and prepare the aircraft for flight.

[redacted]
Assistant Director
(Special Activities)

~~TOP SECRET~~

MEMORANDUM FOR : Director of Central Intelligence

SUBJECT : YF-12A/OXCART Problem

1. The two attached memoranda postulates the views of Dr. McMillan and our Office of Special Activities as to what the probable effect a speed trial with the YF-12A would have on the time at which we could achieve a Mach 2.8 operational capability with the OXCART. They differ substantially, McMillan speaking of two weeks and OSA of one to two months.

2. I believe that the difference lies in that McMillan talks primarily about the two weeks valve delay. The OSA people have compounded this with other problems and tries to recognize how they would probably avalanche. The OSA paper includes such factors as pilot requalification required by not having the trainer (#124) available. I believe that the OSA appraisal is closer to the right answer because the people are closer to the problem. In fact McMillan makes no great claim for his estimate and seems to be saying "it will be at least this long." Unless you have something very persuasive from Kelly to the contrary, I suggest that you make your decision on the basis of the OSA estimate.

/S/
ALBERT D. WHEELON
Deputy Director
for
Science and Technology

10 - DD/S&T
3 - D/TECH/OSA (CPIOMO)
1 - OSA/OSA
1 - D/TECH/OSA
2 - VD/OSA
1 - DD/S&T
3 - EM
5 - DDCI
1 - DCI

[redacted]:D/TECH/OSA:pwj (16 August 1964)

~~TOP SECRET~~